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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,833	03/30/2001	Steven Lemay	IGTECH.0005P	6122

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EXAMINER

ENATSKY, AARON L

ART UNIT	PAPER NUMBER
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3713

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,833

Applicant(s)

LEMAY ET AL.

Examiner

Aaron L Enatsky

Art Unit

3713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant requires that a control code is authenticated (ln 10), but does not clarify what device performs the authentication, thereby rendering the claim indefinite.
3. Claims 2 and 5 objected to because of the following informalities: Both claims recite the limitation of providing power as part of an initiation sequence rendering both claims claiming essentially the same scope and subject matter. The claims appear to be duplicates and one should be removed. Appropriate correction is required.
4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant fails to describe what device generates a signal to cause a control code to be transmitted. As any device could be interpreted as the device to provide a signal it is indefinite as to what the intended signal-generating device comprises.
5. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant requires that a peripheral device identified after execution of code on the peripheral device. Code is sent to the peripheral device from a remote host, therefore the

identification of the peripheral device would have to be known element before sending the code, rendering the claim indefinite.

6. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant requires that a resident code is adapted to cause some action, but fails to specify where the code the resident rendering the claim indefinite. Furthermore, requirement for a programmable data storage also renders the claim indefinite as it is unknown if the code was meant to be resident on the peripheral or the game control device.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

8. Claims 1, 4, 7-17, 19, 23-27, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Acres et al. '304 (Hereafter Acres). In re claims 1,4, and 25 Acres teaches a gaming device having an initiation sequence (Fig. 13-34), transmitting a signal from one device to another device where the signal is a polling signal (Fig. 16), where a transmitted signal would be an indicator to provide control code data (22:65-24:3), the control code is authenticated (23:13-17), and executing control code (26:26-36). As Acres provisions for a peripheral device capable of reconfiguring already stored program data, it is inherent that the peripheral device has data storage as programmable memory.

In re claim 7, as discussed above, code authentication is provided (23:13-17) where the authentication is a comparison of signatures represented as a cyclic redundancy check (CRC).

In re claims 8 and 24, communication could use the RS-232 interface (9:58-59).

Art Unit: 3713

In re claims 9, 14, and 30, a remote device is provided to send control data to a peripheral device. The control code is transmitted to the peripheral device by way of an intermediary device known as a DCN (23:30-40). The DCN communicates with the peripheral device by way of serial communication (22:65-23:2). Acres also make provisions for serial communication over any type known in the art (23:13-15) where the preferred serial embodiment is RS-232 (9:58-59). Methods associated with controller communication and operation are discussed above in regard to claim 1.

In re claim 10, Acres provides for control code storage at the DCN (9:6-15).

In re claims 11-13 and 19, Acres teaches that control code is authenticated before reaching the peripheral when the code is sent from the floor controller to the DCN (Fig. 17) and again from the DCN to the gaming device peripheral (23:13-17). As discussed before, the CRC is authentication by way of comparing control code signatures.

In re claim 15, Acres teaches that gaming devices are uniquely identified (8:48-50) so a signal from a remote device would include device designation.

In re claim 16 and 17, Acres teaches the DCN polling the peripheral device, if the peripheral device is active, a signal is generated as a reply indicating activity that would be from resident code. Hence receiving a reply signal would subsequently let the DCN and remote device know that control code can be sent for reconfiguration (23:13-24:3).

In re claim 23, Acres teaches the host computer having the ability to uniquely identify a peripheral device (8:45-50).

In re claim 26, Acres teaches that a peripheral device is a game machine, which would contain a coin acceptor (10:20-38). As the device is a game machine it would also inherently have button controllers and display controllers as is well known in the art.

In re claim 27, Acres teaches the game control device, known as the DCN having a variety of mass storage devices for storing control code (9:5-32).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3, 5-6, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acres. Acres teaches the claimed limitations as discussed above and additionally teaches initiation of the DCN device includes providing power (Fig. 13), initiation of the DCN device includes resetting (Fig. 13:255) and also disclosed where program memory is downloaded from a remote device where RAM is used (9:6-15). As is well known in the art, RAM is volatile memory, resetting or losing data when a device is turned off or power is removed. Acres does not teach the above features to be present in the peripheral game device. The peripheral game device is taught as a general electronic controlled game device well known in the art (7:16-25). As the peripheral game devices are provided as electronic devices, the above limitations regarding initiation sequences that include device powering and device resetting as well as the storage components are common methods and components in any electronic game device. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention

Art Unit: 3713

was made to include the initiation methods and components, as taught by Acres in the DCN, in the peripheral game device.

10. Claims 18, 20-22, 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Acres in view of McCauley '392. Acres teaches the claimed limitations as discussed above, but does not teach the use of USB as a serial connection protocol/interface. McCauley teaches using USB as an interface and communication protocol between a variety of peripheral devices (Abstract). One would be motivated to modify Acres to include the McCauley teaching of USB as an interface mechanism as it well known in the art that USB is an up to date serial line protocol and additionally USB would reduce cost and complexity of computer interface hardware design in peripheral devices (McCauley, 2:35-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Acres's use of RS-232 standard for a serial communication interface to use USB, taught by McCauley, as USB is an analogous and up to date serial line interface protocol to RS-232.

In re claims 20-22, Acres teaches of using CRC to verify code sent to peripheral devices as discussed above, but does not include periodic polling to verify code. McCauley teaches that periodic polling of peripheral devices is used to verify authenticity of devices by comparing a stored code in a remote host device against a code transmitted from a peripheral device (7:29-47). The process of authenticating devices by using the code comparison method is analogous to verifying transmitted code, therefore it would have been obvious to modify Acres use McCauley's periodic polling and code comparison technique for enhanced security. Furthermore, CRC is analogous to directly comparing code required by Applicant as CRC uses an algorithm to generate a signature based upon the original code. Likewise as taught by Acres and McCauley,

Art Unit: 3713

verification can occur on both the remote host side and peripheral side therefore it would have been further obvious to have sent the code from either location at periodic times for verification which would include sending the code from the remote host device more than once for comparison/verification.

Conclusion

11. In regard to various claims dealing with code verification whether processed on the host or peripheral side, verification as a security mechanism is well known in the art. The CRC discussed above is one of the most simplistic forms of data verification. The CRC and other hashing algorithms, such as MD5 (for greater encryption security), for verifying data transmitted or stored between various devices are used in almost every aspect of data communication.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pease et al. '887, discloses a peripheral device download and update mechanism with security aspects.

McGlone et al. '900, discloses a game system using peripheral devices connected through USB having security aspects.

Takeda et al. '257, discloses a security system implemented in a game system for communication with peripheral devices.

Mathis et al. '008, discloses a game system have a plurality of peripheral devices that are programmable through serial communications from a master device.

Newton's Telecom Dictionary, discloses the definition of USB as a common serial bus used to pass data including code and power to peripheral devices, replacing aging serial interconnect technology.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron L Enatsky whose telephone number is 703-305-3525. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached on 703-308-4119. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-9302 for regular communications and 703-746-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

ale
July 11, 2002

A handwritten signature in black ink, consisting of a stylized 'J' and 'H' followed by a horizontal line.

**JESSICA HARRISON
PRIMARY EXAMINER**